

REMARKS/ARGUMENTS

Claims 1 and 3-20 are pending in this application. Claims 1, 14 and 19 are amended and claim 2 is canceled without prejudice or disclaimer. Favorable reconsideration and allowance of the present patent application are respectfully requested in view of the foregoing amendments and the following remarks.

Entry of the amended claims is proper under 37 C.F.R. §1.116 since the amendments: (1) place the application in condition for allowance (for the reasons discussed herein); (2) do not raise any new issues requiring further search and/or consideration (since the amendments amplify issues previously discussed throughout prosecution without incorporating additional subject matter); and/or (3) place the application in better form for appeal (if necessary). Entry is thus requested.

35 U.S.C. §103 Rejection

Claims 1-20 were rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Bojerd (U.S. Patent No. 5,946,622) in view of Baum et al. (U.S. Patent No. 6,510,319) and Weaver Jr., et al. (U.S. Patent No. 5,917,811) and Tiedemann Jr., et al. (U.S. Patent No. 5,999,816).

Baum et al. (hereafter "Baum:")

1a) Regarding claims 1 and 11, the Office Action states that the Abstract in Baum "is interpreted by the examiner to read on power transmission is not lowered." Applicant respectfully disagrees with this characterization. As discussed in Applicant's prior response,

Baum explicitly teaches to lower the gain of the base station. This is expressly taught in column 2, lines 21-29 of Baum, which follows (with emphasis added).

More particularly, when an overload status is attained by a base station, it informs the SDU of the actual value of the power gain level applied and its power overload status. Once the overload status is detected, no further gain increases by the SDU are allowed until the power overload condition is retracted. **Gain decreases, however, are allowed.** That is, the subsequent **gain values can be less than or equal** to the value returned with the most recent response indicating overload.

As expressly stated in the above-referenced section, Baum teaches to decrease the gain of the forward link. Applicant fails to understand how the abstract can be interpreted by the Office Action "to read on power transmission is not lowered" (page 2 of Office Action dated October 29, 2003). Applicant respectfully submits that the Office Action's interpretation of Baum is in direct contradiction to Baum's express teachings. Therefore, the Baum reference as applied cannot teach the features alleged by the Office Action.

1b) Further, regarding claims 1 and 11, the February 9, 2004 Office Action asserts that Baum discloses providing gain control that determines a gain which is acceptable to all base stations involved in the handover. The Office Action again cites the Abstract in Baum and further asserts this disclosure would involve raising the power, lowering the power or keeping the power the same. See page 2, Item 2 of the February 9, 2004 Office Action.

In contrast, Applicant's claim 1 recites performing a power control such that a transmission power level of said mobile station is not lowered, if said mobile station is determined to be within said handoff region and if a soft handoff of said mobile station is

required and combinations thereof. Thus, Applicant's claim 1 recites features of power control when a soft handoff of said mobile station is required in a soft handoff region. Under such conditions, Baum discloses an intersecting region 142 and a mobile terminal 260 simultaneously served by base stations (BS) 106 and 108 during a soft handoff. See Figure 1 and column 4, lines 34-37 of Baum. Baum further discloses "soft handoff occurs when the power level of the signal between the mobile terminal and another base station (e.g., BS 108) is increased above a predetermined threshold." See column 3, lines 38-41 of Baum. During soft handoff when an overload conditions applies, Baum discloses BS 108 suggests applying a forward link gain at level "X2," which is less than the BS 106 level "X1," and then a power control system 206 reduces the forward link gain setting to level "X2" for all base stations (e.g., base station 106 and 108). See Fig. 2B and column 5, lines 4-15 of Baum. Under conditions that no overload exists, Fig. 2A appears to disclose no adjustment to the power levels that trigger the soft handover. Accordingly Applicant respectfully submits that Baum specifically teaches away from at least features of a transmission power level of said mobile station is not lowered, and combinations thereof recited in claim 1.

1c) Further, the Office Action now acknowledges that Baum does not disclose reverse link power control. However, the Office Action does not suggest why one of ordinary skill in the art would look to the alleged teachings of controlling interference between base stations to obtain teachings as to how to control the power level from mobile terminals to a base station. The Office Action asserts in page 2, Item 3 of the February 9, 2004 Office Action that forward

and reverse power controls are well known in the art and one skilled would use both concurrently. Applicant agrees with this general statement. However, Applicant wishes to clarify that the concerns, tradeoffs, prior art and standard procedures of forward link power control can be different, separate issues than the same for reverse link power control. See for example, page 8, lines 16 - page 9, line 3 of the present specification. Thus, Applicant respectfully submits that even if Baum disclosed power control features for a forward link, such features do not teach or suggest any features or similar features regarding a reverse link power control. Further, as noted above the Office Action's "teachings" regarding the base station power control are in direct contradiction to Baum itself with regard to forward link power control during soft handoff under overload conditions.

1d) In summary, Applicant respectfully submits Baum teaches in overload conditions to decrease the gain of the forward link in a soft handoff, which teaches away from at least recited features of a transmission power level of said mobile station is not lowered, if said mobile station is determined to be within said soft handoff region and if a soft handoff of said mobile station is required. Applicant respectfully submits features wherein the transmission power level of said mobile station is not lowered during a transmission of an extended handoff direction message and a handoff complete message recited in claim 1 require that a power level never be lowered during same. Again, Applicant respectfully notes cited portions of Baum address a forward link and claim 1 recites features of a reverse link.

Weaver Jr. et al. (hereafter "Weaver")

2a) With respect to claim 11, the Office Action relies on Weaver to cure the additional deficiencies of Baum, which fails to teach or suggest "setting a reverse link coverage of said picocell greater than a forward link coverage of said picocell..." (page 5, lines 17-20 of Office Action dated February 9, 2004). However, Weaver teaches in column 21, line 60 to column 22, line 29, as noted by the Office Action, "a base station which balances a forward a link coverage area to reverse link coverage area" (page 2, Item 3, Office Action dated February 9, 2004). Once again, Applicant respectfully submits that the Office Action has ignored the express teaching of Weaver to "interpret" a contradictory teaching. In this case, in direct contradiction to the admitted teaching of Weaver, the Office action alleges that Weaver teaches a reverse link coverage area greater than a forward link coverage area.

2b) Further, the Office Action asserts Weaver provides a system that controls forward/reverse link coverage areas, which depend on power control. Applicant respectfully submits that Weaver uses different, independent procedures to control the forward and reverse link power. In addition, Applicant respectfully notes Weaver is directed to a method and apparatus for measurement directed hard handoff in a CDMA system. Applicant respectfully submits that Weaver is silent with respect to power control methods during a soft handover.

2b) Finally, Applicant respectfully submits Weaver teaches away from features recited in claim 11 because Weaver teaches that when the system becomes loaded, the reverse link handoff boundary effectively moves closer in towards the base station. Thus, Weaver discloses

the reverse link power is less than the forward link power but that the forward link can be compensated. See also column 22, lines 29-37 of Weaver. In contrast, claim 11 recites setting a reverse link coverage of said picocell greater than a forward link coverage of said picocell if said mobile station is determined to be within said soft handoff region and if the soft handoff of said mobile station is required and combinations thereof.

Tiedemann Jr. et al. (hereafter Tiedemann)

With respect to Tiedemann, Applicant respectfully submits that Office Action again ignores the express teaching of this reference, which discloses in column 17, lines 51-60 the following (with emphasis added).

Regarding the reverse link power control, the transmission power of the mobile station is controlled in a closed loop fashion by comparing the received energy of a group of symbols in the reverse link frame to a threshold value. If the received energy of a group of symbols is less than the threshold value, the mobile station is instructed to increase its transmission power. **If received energy of a group of symbols is above the threshold value, the mobile station is instructed to decrease its transmission power.**

As expressly stated in the above-referenced section, Tiedemann teaches a conventional closed loop control which allows for the control power to be lowered, which is in direct contradiction to the functionality the Office Action alleges Tiedemann supports.

§103 Rejection

a) As stated in MPEP § 2143.01, to establish prima facie obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. *In re Royka*, 490

F.2d 981, 180 USPQ 580 (CCPA 1974). "All words in a claim must be considered in judging the patentability of that claim against the prior art." *In re Wilson*, 424 F.2d 1382, 165 USPQ 494, 496 (CCPA 1970). Neither Bojerd, Baum, Weaver, Tiedemann nor the combination of these references discloses the features of Applicant's claimed combinations as noted above. Therefore, these references do not render Applicant's claimed combinations obvious as alleged by the Office Action.

Additionally, as stated in MPEP § 2141.02, a prior art reference must be considered in its entirety, i.e., as a whole, including portions that would lead away from the claimed invention. *W.L. Gore & Associates, Inc. v. Garlock, Inc.*, 721 F.2d 1540, 220 USPQ 303 (Fed. Cir. 1983), cert. denied, 469 U.S. 851 (1984). As confirmed in MPEP § 2145, it is improper to combine references where the references teach away from their combination. *In re Grasselli*, 713 F.2d 731, 218 USPQ 769, 779 (Fed. Cir. 1983). Clearly, in applying the Bojerd, Baum, Weaver and Tiedemann references, the Office Action completely disregards the teachings of these references that expressly teach away from the claimed features. Accordingly, these references do not render Applicant's claimed combinations obvious as alleged by the Office Action.

b) Further, Applicant respectfully submits that one of ordinary skill in the art would not have been motivated to modify the systems of Bojerd, Baum, and Weaver to arrive at Applicant's claimed combinations absent impermissible hindsight reference to Applicant's specification. Applicant notes that Bojerd, Baum, Weaver and Tiedemann are in generally the same field of endeavor (RF cellular communications). However, Applicant again notes that

power control goals and procedures of forward link are generally independent of reverse link. Further, Applicant respectfully submits that hard handoff procedures can be independent of soft handoff procedures. Applicant further respectfully notes that the Office Action has not addressed reasons why procedures directed towards a hard handover (e.g., Weaver and Tiedemann) should be applied to the features recited in claims 1-20 or why such features should be applied to a method and apparatus directed towards soft handover such as described in Baum.

Finally, although the references in general are in the same field of endeavor, the specific features and the specific motivation to combine them that is asserted to result in features claimed in pending claims 1-20 are believed to have been arrived at using impermissible hindsight reference. For example, Applicant respectfully submits that the applied references, individually or in combination, do not teach or suggest at least features of setting a reverse link coverage of said picocell greater than a forward link coverage of said picocell, if a soft handoff of said mobile station is required and combinations thereof as recited in claim 11 or performing a power control such that a transmission power level of said mobile station is not lowered, if a soft handoff of said mobile station is required and combinations thereof as recited claim 1.

Applicant respectfully submits the Office Action merely compiles a list of "alleged teachings" and frames them within the context of Applicant's disclosure. Applicant respectfully submits that there is no teaching or suggestion in the references that support this amalgamation of these "alleged teachings," which are further contradicted by the references themselves. Thus,

specific conditions and timing of the recited features of power control have been arrived at using impermissible hindsight reference to Applicant's specification.

c) Applicant sincerely acknowledges the Office Action's indication that a more favorable outcome may occur if claims 12-14 were added to claim 11. See page 2, Item 1 of the February 9, 2004 Office Action. However, Applicant respectfully submits that claim 20 recites a combination of features that according to the Office Action "may receive a more favorable outcome."

SUMMARY

For at least the foregoing reasons and the reasons set forth in Applicant's previous Amendments (which brevity, Applicant expressly incorporates herein without a literal rendition of those arguments in this response), it is respectfully submitted that claims 1, 11 and 20 are distinguishable over the applied art. The remaining dependent claims are allowable at least by virtue of their dependency on the above-identified independent claims. See MPEP § 2143.01. Moreover, these claims recite additional subject matter, which is not suggested by the documents taken either alone or in combination. Withdrawal of the rejection of claims 1-20 under 35 U.S.C. §103 is respectfully requested.

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CONCLUSION

In view of the foregoing amendments and remarks, it is respectfully submitted that the application is in condition for allowance. If the Examiner believes that any additional changes would place the application in better condition for allowance, the Examiner is invited to contact the undersigned attorney, **Carl R. Wesolowski**, at the telephone number listed below.

To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this, concurrent and future replies, including extension of time fees, to Deposit Account 16-0607 and please credit any excess fees to such deposit account.

Respectfully submitted,
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